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tions algorithm, an online dictionary learning method, a recursive least squares dictionary learning algorithm, or a combination thereof.

4. A method according to claim 1, wherein the machine-learning algorithm utilizes a K-SVD algorithm and said training further comprises:

generating a first dictionary as a function of the regions of the faces of individuals corresponding to the first portion in the set of images; and

generating a second dictionary as a function of both the regions of the faces of individuals corresponding to the first portion and the regions of the faces of the second portion in the set of images.

5. A method according to claim 4, further comprising jointly and simultaneously minimizing reconstruction error for the one or more first facial features and reconstruction error for hallucinating the one or more second facial features for the same sparse coefficients.

6. A method according to claim 5, wherein jointly and simultaneously minimizing reconstruction errors includes forcing consistent sparse representations during said training.

7. A method according to claim 1, wherein the set of images consists of images of individuals of a particular gender or set of genders, ethnicity or set of ethnicities, age or range of ages, or a combination thereof, wherein the particular gender or set of genders, ethnicity or set of ethnicities, age or range of ages, or combination thereof is selected as a function of the first face.

8. A method according to claim 1, further comprising generating a composite image including the first and second features of the first face.

9. A method according to claim 8, further comprising comparing the composite image to one or more images of individuals, each image containing at least a region of a face of an individual corresponding to the first portion of the first face and a region of the face of the individual corresponding to the second portion.

10. A method according to claim 1, wherein prioritizing reconstruction errors for hallucinating the one or more second facial features is optimized by cross-validation.

11. A machine-readable storage medium containing machine-executable instructions for performing a method of hallucinating facial features of a first face by prioritizing reconstruction errors, wherein the first face is present in an image in which a first portion of the first face is un-occluded and a second portion of the first face is occluded, said machine-executable instructions comprising:

a first set of machine-executable instructions for receiving the image of the first face, the first portion containing one or more first facial features;

a second set of machine-executable instructions for training a machine-learning algorithm using a set of images each containing a region of a face of an individual corresponding to the first portion of the first face and a region of the face of the individual corresponding to the second portion of the first face so as to produce machine-learning data or receiving machine-learning data corresponding to a previous implementation of such training; and

a third set of machine-executable instructions for hallucinating one or more second facial features with the second portion of the first face as a function of the

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machine-learning data by prioritizing reconstruction errors for hallucinating the one or more second facial features such that reconstruction error for the one or more first facial features is minimized with a higher priority than reconstruction error for hallucinating the one or more second facial features.

12. A machine-readable storage medium according to claim 11, wherein the first portion of the first face is a periorcular region.

13. A machine-readable storage medium according to claim 11, wherein the machine-learning algorithm utilizes a K-SVD algorithm, a convolutional neural network algorithm, an autoencoder algorithm, a sparse filtering algorithm, a method of optimized directions algorithm, an online dictionary learning method, a recursive least squares dictionary learning algorithm, or a combination thereof.

14. A machine-readable storage medium according to claim 11, wherein the machine-learning algorithm utilizes a K-SVD algorithm and said second set of machine-executable instructions for training further comprises:

a set of machine-executable instructions for generating a first dictionary as a function of the regions of the faces of individuals corresponding to the first portion in the set of images; and

a set of machine-executable instructions for generating a second dictionary as a function of both the regions of the faces of individuals corresponding to the first portion and the regions of the faces of the second portion in the set of images.

15. A machine-readable storage medium according to claim 14, further comprising a fourth set of machine-executable instructions for jointly and simultaneously minimizing reconstruction error for the one or more first facial features and reconstruction error for hallucinating the one or more second facial features for the same sparse coefficients.

16. A machine-readable storage medium according to claim 15, wherein jointly and simultaneously minimizing reconstruction errors includes forcing consistent sparse representations during said training.

17. A machine-readable storage medium according to claim 11, wherein the set of images consists of images of individuals of a particular gender or set of genders, ethnicity or set of ethnicities, age or range of ages, or a combination thereof, wherein the particular gender or set of genders, ethnicity or set of ethnicities, age or range of ages, or combination thereof is selected as a function of the first face.

18. A machine-readable storage medium according to claim 11, further comprising a fourth set of machine-executable instructions for generating a composite image including the first and second features of the first face.

19. A machine-readable storage medium according to claim 18, further comprising a fifth set of machine-executable instructions for comparing the composite image to one or more images of individuals, each image containing at least a region of a face of an individual corresponding to the first portion of the first face and a region of the face of the individual corresponding to the second portion.

20. A machine-readable storage medium according to claim 11, wherein prioritizing reconstruction errors for hallucinating the one or more second facial features is optimized by cross-validation.

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